

## HOG CHOLERA.

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FEBRUARY 11, 1914.—Committed to the Committee of the Whole House on the state of the Union and ordered to be printed.

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Mr. LEVER, from the Committee on Agriculture, submitted the following

### REPORT.

[To accompany S. 3439.]

#### ALSO VIEWS OF MR. HAUGEN.

The Committee on Agriculture, to whom was referred the bill (S. 3439) appropriating funds for the purpose of the investigation, treatment, and eradication of hog cholera, having considered the same, report thereon with a recommendation that, with amendments as will be hereinafter shown, it do pass.

The bill as reported from the committee carries an appropriation of \$600,000 to become available upon the passage of the bill. Five hundred thousand dollars of this amount is to be used in the investigation, treatment, and eradication of hog cholera under the direction of the Secretary of Agriculture. The remaining \$100,000, or so much thereof as may be necessary in the opinion of the Secretary of Agriculture, is to be used in the investigation, treatment, and eradication of swine fever. The committee regards both propositions as being of very great importance. With respect to the first—the appropriation of \$500,000 for the investigation and eradication of the disease known as hog cholera—the committee believes that the appropriation recommended for this purpose is justified by the magnitude and importance of the undertaking, and that immediate action is required on account of the emergency character of the situation.

The committee calls attention to the fact that the meat of the hog is largely the basis of the every-day meal of the average citizen, and is more generally used by all classes of people than any other meat. Beef and mutton are important in the meat supply of the Nation, but pork—hog meat—is absolutely essential to the average family. The proposition presented by this bill involves in a large way the meat supply of the people of the country. Hog production must increase if the amount of hog meat consumption must decrease. Statistics



show a constant decrease in the number of hogs in the country with as certainly a constant increase in the number of consumers of hog meat, together with a steadily increasing value of the hogs. In 1913 the Department of Agriculture estimates that there were 61,178,000 hogs in the country.

In 1914 the same source of information shows there were only 58,933,000, or a decrease of 2,245,000, hogs, although the value of the hog crop for 1914 was \$612,951,000, as against \$603,109,000 for 1913, or a difference in value of \$9,842,000, notwithstanding the decrease of 2,245,000 in number. The total number of hogs in the country have decreased, therefore, but the total value of the hogs in the country has increased. With increasing values and increasing demands, as shown in increasing population, it would be expected that the statistics would show an increasing number of hogs from time to time in keeping with usual economic laws. This, however, is not the case in this instance, and the committee feels that this reversal of a well-known economic law is due to the presence and menace in the country of the disease commonly known as hog cholera. It is safe to assume that 90 per cent of the difference in the number of hogs in the country in 1913, as compared with 1914, was due to losses traceable to hog cholera. This in itself represents a tremendous burden upon the meat producing and consuming public, and yet it does not represent the entire burden because the actual physical loss does not represent the real burden, which must be calculated upon a basis of what the number would have been under other and normal conditions. It is natural to expect that an increasing price of hogs would induce the farmer to raise more of them, and he would except for the fear of same danger, and this danger, it is well known, is the hog cholera plague.

The committee believes that a disease which places an annual toll of \$70,000,000, as estimated by the Department of Agriculture upon the principal meat-producing animal of the country, presents a problem which is national in its scope. The losses entailed by hog cholera are of interest both to producer and consumer. The city man can no more escape the burden of this scourge than can the country man. All interests are concerned most directly and vitally. This matter became so pressingly acute that upon the initiative of the Agricultural Committee of the House in the Sixty-second Congress there was authorized an expenditure of \$75,000 for "Demonstrating the best method of preventing and eradicating hog cholera." With this appropriation work has been carried forward in four distinct areas in the great hog-producing belts of the country—Missouri, Iowa, Indiana, and Nebraska—and although the appropriation was not available until the 1st of July, and the disease of hog cholera was already widespread, in the selected experimental areas, the results from the experiments indicate the strong possibility of ultimate eradication of the disease in these areas. Certainly the results show that the losses in these areas from hog cholera were reduced remarkably in all cases, notwithstanding the fact that work in these areas began in midsummer after a large percentage of the loss for the year had already occurred. The facts as presented by Dr. M. Dorset, in charge of this work in the Department of Agriculture, before your committee indicate possibilities which neither you



committee nor the House can overlook and are in substance as follows:

**DORSET.** I have some figures made up from the results of the work this summer. Hogs actually sick we lost 25 per cent. Of well hogs in diseased herds 2.8 per cent died, and of hogs in exposed herds only about 0.7 per cent died. In an infected herd there are always a certain proportion of hogs that are well when the inspector is there. The inspectors examine the hogs and take the temperature of all hogs in the herd, and thus separate the sick from the well.

**1st, Dallas County, Iowa:** In 1911 they raised 77,274 hogs; they lost 11,337; percentage of loss, 12.7.

**1912 Dallas County** raised 84,618 hogs and lost 19,821; percentage of loss, 18.9.

**1913 Dallas County** raised 118,550 hogs and lost 9,182; percentage of loss, 7.1.

With regard to the losses in Dallas County in 1913, 5,289 out of 9,182 died before the 1st of July, before our men went there at all, whereas 3,893 have died since the 1st of July.

**Pettis County, Mo.,** there were raised in 1911 62,590 hogs; lost, 13,740; percentage of loss, 18.

**1912** they raised 59,661 and lost 20,550; percentage of loss, 25.6.

**1913** they raised 59,792 and lost 10,376; per cent of loss, 14.7.

Now, again, in Pettis County, of the 10,376 hogs that died in 1913, 9,035 died before the 1st of July. Our inspector did not go into that county until the 1st of August. Think a loss of only 1,341 hogs since the 1st of July in that county is a very gratifying thing, for there is every indication that that county would have lost at least three times as many hogs as it did if our men had not gone in there.

**SLOAN.** Are those later months bad months in that respect?

**DORSET.** After the 1st of July is when most of the hogs are lost.

**SLOAN.** Is it not the fact, too, that the losses from hog cholera this year have been nearly twice what they have been heretofore—or a great deal larger, at least?

**DORSET.** No; it is not my judgment that hog cholera is worse this year than ever before. I think we merely hear more of it; the farmer reports it; he has learned there is something which will prevent it.

Now, as to Montgomery County, Ind.: Hogs raised in 1911, 73,920; losses, 20,414; percentage of loss, 21.6. In 1912, hogs raised, 74,554; losses, 23,983; per cent of loss,

In 1913, hogs raised, 75,974; lost, 5,098; per cent of loss, 6.2.

In every county we find that in 1913 there has been less loss from hog cholera than in either of the two years preceding. We also find that in some of the counties where the losses were the largest in 1913 most of the loss occurred before our men went into the county.

I have figures showing exactly the results in the case of herds that were treated. The losses that I have reported here are of all hogs that died in the county. When the inspectors went in Montgomery County the 1st of July there were 65 outbreaks in the county. In order to carry out the plan we had mapped out, to treat the sick herds and inoculate herds surrounding, we would have had to treat immediately after the 1st of July not less than 300 herds in that one county. We had not the hog cholera serum at that; we had only a little experimental plant, and that plant had to be enlarged after the 1st of July, so that the disease was getting along and a good many hogs were lost in herds that it was not possible for us to treat.

These results incline the committee to the belief that hog cholera can be reduced, controlled, and substantially eradicated from the country by a reasonable expenditure of money during a reasonable period of time. And with this belief in mind the committee does not hesitate to recommend this appropriation, which it believes will develop into a profitable investment rather than a mere expenditure of public money. However, the committee is convinced that the magnitude of the undertaking will necessitate the vigorous joint action of Federal, State, and local agencies to deal with it effectively. The problem is so large that neither Federal nor State authority alone can handle it. It requires joint and united effort of these agencies, one of the large factors being the education of the people and the demonstration to them of the value of the serum and virus. The Federal Government, however, on account of the interstate traffic in pork and hog products, is most intimately interested and has a most



clear duty in the premises. The directing influence of the Department of Agriculture in this problem, which involves all the States, is essential if a nation-wide plan of hog-cholera eradication is to be undertaken successfully. The committee recommends this appropriation as an emergency appropriation to provide for dealing with the situation for the time being. We realize, however, that some comprehensive machinery must be provided which will stimulate cooperative Federal and State action in the solution of this question, and it is the intention of the committee to propose such a measure during this session of Congress.

The committee urges the adoption of this bill as amended without delay, in order that the department may proceed at once to the perfection of an organization to meet the situation as it will arise in the early summer, for a greater amount of good can be done in this way if the appropriation is made now than if made later in the year, when hog cholera begins its ravages in the early summer.

The committee submits a table showing the estimated number of hogs lost from cholera by States and commends it to the earnest attention of the House.

*Estimated number of hogs lost from cholera—Average price per head Jan. 1, 1913—Total monetary loss to each State.*

State and division.	Estimated loss of hogs from cholera for year ending Jan. 1, 1913.	Average prices per head Jan. 1, 1913.	Monetary loss to each State.
Maine.....	2,545	\$12.90	\$32.80
New Hampshire.....	1,170	12.70	14.86
Vermont.....	1,829	12.20	22.32
Massachusetts.....	4,140	13.00	53.82
Rhode Island.....	315	14.50	4.57
Connecticut.....	1,566	14.00	21.92
New York.....	20,547	12.60	258.90
New Jersey.....	5,760	13.00	74.88
Pennsylvania.....	43,731	12.50	546.64
North Atlantic.....	81,403		1,031.22
Delaware.....	2,610	11.20	29.23
Maryland.....	27,135	9.80	265.93
Virginia.....	36,115	7.00	252.81
West Virginia.....	23,389	9.00	210.50
North Carolina.....	69,687	7.70	536.49
South Carolina.....	51,637	8.50	438.91
Georgia.....	280,368	7.10	1,990.61
Florida.....	134,334	5.90	792.57
South Atlantic.....	625,275		4,511.46
Ohio.....	263,082	10.80	2,841.28
Indiana.....	500,715	9.80	4,907.01
Illinois.....	543,690	10.50	5,708.75
Michigan.....	47,268	10.80	510.49
Wisconsin.....	51,156	11.60	593.41
North Central east of Mississippi River.....	1,405,911		14,560.40
Minnesota.....	84,249	12.70	1,069.96
Iowa.....	1,255,680	12.00	15,068.16
Missouri.....	643,702	8.50	5,471.47
North Dakota.....	6,588	13.70	90.26
South Dakota.....	40,390	11.00	444.29
Nebraska.....	37,600	11.40	428.64
Kansas.....	281,988	10.40	2,932.68
North Central west of Mississippi River.....	2,350,197		25,500.49



*Estimated number of hogs lost from cholera—Average price per head Jan. 1, 1913—Total monetary loss to each State—Continued.*

State and division.	Estimated loss of hogs from cholera for year ending Jan. 1, 1913.	Average prices per head Jan. 1, 1913.	Monetary loss to each State.
Kentucky.....	140,049	\$7.10	\$994,347
Tennessee.....	133,204	7.40	985,709
Alabama.....	144,144	6.80	980,179
Mississippi.....	205,405	6.90	1,417,294
Louisiana.....	139,788	7.00	978,516
Texas.....	100,966	8.40	848,114
Oklahoma.....	96,592	8.90	859,663
Kansas.....	220,176	6.70	1,475,179
South Central.....	1,180,324	.....	8,539,006
Montana.....	2,754	11.90	32,772
Wyoming.....	553	11.00	6,083
Colorado.....	18,450	11.00	202,950
New Mexico.....	1,263	9.60	12,124
Arizona.....	209	11.50	3,093
Utah.....	1,749	11.00	19,239
Idaho.....	604	11.00	6,644
Washington.....	7,758	10.30	79,907
Oregon.....	5,108	11.30	57,720
California.....	7,236	9.50	68,742
	36,990	9.20	340,308
Far Western.....	82,734	.....	829,582
Total for United States.....	5,730,844	.....	54,982,825

The committee calls especial attention to the proviso of the bill which gives authority to examine and inspect establishments preparing hog-cholera serum and other viruses. This provision enables the department to put into every plant manufacturing serum and virus for interstate shipment its inspectors, who will be empowered to prevent the interstate shipment of such serums and viruses until convinced that their manufacture is made under such conditions as will guarantee potency and effectiveness. This proviso is especially important because it will enable the Government to prevent the interstate shipment and sale of fraudulent and worthless serums and viruses, which in themselves are not only a fraud upon the buyer of them but may be a means of disseminating the disease. The regulation of the sale of serum and virus is most important in the plan of eradication, and this proviso gives a very substantial control in this regard.

The committee calls attention to the proviso which permits the Secretary of Agriculture to expend \$100,000 for "the investigation, treatment, and eradication of dourine." Dourine is a disease which affects horses, and is "likened to syphilis in the human family; it is not the same disease; there is a pathological difference." This disease is prevalent in a number of the Northwestern States—Montana, the two Dakotas, Wyoming, Colorado, and Nebraska—and it threatens the entire horse industry of the country and should be dealt with in the most vigorous manner. Every State is interested in the eradication of this disease, for it may spread to any State at any time. About 10 per cent of the range horses are afflicted by this melody and these horses are sold, unless the disease should be detected, into every State. It is a very serious situation, as much so, it is the belief

of the committee, as would be the outbreak of foot-and-mouth ease among cattle, and this appropriation is most earnestly urged.

The committee recommends the passage of the Senate bill with following amendments:

(a) Amend title by striking out the period after the word "chole" and insert the words "and dourine."

(b) On line 4, page 1, strike out the figure "5" and insert "6," that it will read "\$600,000" instead of "\$500,000."

(c) On line 8, page 1, after the word "cholera," strike out colon and add the words "and dourine," and add a comma there after, and the following language: "including the employment of assistants, clerks, and other persons, and the payment of all other necessary expenses, in the city of Washington and elsewhere."

(d) On line 8, page 1, after the word "provided," strike out comma and the word "however" and the comma.

(e) On page 2, line 8, after the word "thereunder," strike out period and insert a semicolon and add the following: "*And provided further*, That not more than \$100,000 of the sum hereinbefore provided shall be used for the investigation, treatment, and eradication of the disease known as dourine."



## VIEWS OF MR. HAUGEN.

In view of the inadequate supply of potent antihog-cholera serum, the lack of facilities for the production of the serum, the urgent recommendation made by Dr. Melvin, and Dr. Dorset, in charge of the work for better facilities, and the importance of the work, it would seem advisable to set aside a part of the proposed appropriation for the production, sale, and distribution of the serum. Attention is called to Dr. Melvin's statement, printed on page 27, Hearings before the Committee on Agriculture, House of Representatives, December 9 and 10:

Dr. MELVIN. Mr. Chairman, may I make a statement?

The CHAIRMAN. Yes.

Dr. MELVIN. Two bills have been introduced in the Senate for very large amounts for this work. Now, if any such sums as those are finally appropriated, it will be necessary for us to have very much larger laboratory facilities than we now have, because the small equipment we now have is only sufficient to take care of an appropriation of this size. Then, of course, we shall have to increase the size of our serum plant in proportion to the amount of money that is finally appropriated for this work.

### Page 28:

Mr. HOWELL. Is there not still some difference of opinion among those who know, claim to know, about the efficacy of your treatment?

Dr. MELVIN. I do not think there is any doubt among those who know, Mr. Howell; it is on the part of those who do not know. [Laughter.]

Mr. HOWELL. But there is more or less dispute about it, is there not?

Dr. MELVIN. I do not think there is. There are other organizations. For instance, Ohio has a very complete organization; they have a laboratory that they are just beginning to use, costing \$100,000 to build. Next year they will handle a great part of the State—not all of it, because it would take, in my opinion, four or five such laboratories to produce serum sufficient for the entire State of Ohio. Their experiences have been right along the line of ours—that where they made proper serum they could control the disease.

Mr. HAWLEY. Do the State laboratories make a good serum? What is your experience in regard to that?

Dr. MELVIN. We have only their data to go on. We have not used it ourselves, except in the case of Missouri, where we have used their serum very satisfactorily.

Mr. HAWLEY. It is not difficult for a skilled operator to make, is it?

Dr. MELVIN. No; but a man must have training along that line; and he must know what proper sanitation is in order to make a serum that will not be infected from outside sources.

Mr. MAGUIRE. You are confident that this is an absolute preventive, are you?

Dr. MELVIN. Yes, sir; I am.

Mr. CANDLER. You said a moment ago that you did not sell any; hence the State has to manufacture it itself in order to get it?

Dr. MELVIN. The State or private manufacturers. There are a good many private manufacturers.

Mr. CANDLER. The United States does not manufacture enough to divide up even with the States?

Mr. HAUGEN. How many States are manufacturing?

Dr. GALLOWAY. Thirty.

Dr. MELVIN. About 30.

### Page 30:

Mr. HAUGEN. Mr. Chairman, what I would like to get is a statement from Dr. Melvin, giving his opinion whether this appropriation should be increased, and if so, to what extent, in order to be used advantageously.



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Dr. MELVIN. I think it would be highly advantageous to the country to have increased.

Mr. HAUGEN. To what extent? I think we all appreciate that you have more knowledge of this situation than probably any Member of Congress; and I would like to know about what you think as to the extent to which it could be carried out advantageously.

Dr. MELVIN. One idea I had in mind was that, if the department is expected to continue this work for any considerable time, an appropriation sufficient to put up a good up-to-date laboratory for the preparation of serum, and also for the further study of the disease, should be made. We have not learned all about the disease that we think may be learned; and, if we had a proper permanent equipment of this sort, it would be highly desirable. The equipment would cost at least \$100,000. Then we would be prepared to take up work in a number of States—probably 20. This would require an outlay of probably \$400,000 or \$500,000. As it is, our original plant was a very small affair, put up of match boards. The floor space was not half the size of this room. To provide for this work we bought some of these portable tin houses, put them up, and made them into laboratories. We are doing efficient work there, but there is nothing permanent to it; and it is not even on our own ground, but on leased ground. We had to put up temporary buildings; and, if we are to continue in this work for ten or a dozen years, which seems probable, I think we should first start with a proper equipment and be prepared to show these manufacturers, and the State people as well, what, in our opinion, is a proper laboratory.

Mr. HOWELL. If you had such a laboratory as that, your idea would not be to make serum enough to supply it for anything except your own work?

Dr. MELVIN. I do not think we would, no, sir; I do not think we could supply much outside of what we would need in the several States, because it is a tremendous proposition.

Mr. HOWELL. You said "in the several States." Do you mean for your own work in the several States?

Dr. MELVIN. Yes.

Mr. REILLY. Dr. Melvin, are not several of the State universities and agricultural schools preparing to furnish serum for their own States?

Dr. MELVIN. Yes, sir; some of them.

Mr. REILLY. Is it not probable that all of them, after this is demonstrated, will do that?

Dr. MELVIN. They will in a limited way, but I do not think they will be prepared so that all hog raisers can get it from them.

Mr. HAUGEN. What amount would you suggest, then, for the next year's appropriation?

Dr. MELVIN. It is a big problem; it would take probably half a million dollars to do it properly, in an extended way.

Mr. TAYLOR. Why could you not take \$100,000 to perfect your plant, etc., and \$75,000 to keep your men that you now have? Why would not that cover it?

Dr. MELVIN. That would hardly be in proportion. I think if we had a plant for \$100,000, the other ought to be larger—a couple of hundred thousand dollars.

Dr. Melvin, Chief of the Bureau of Animal Industry, who has probably given the subject of eradicating hog cholera more thought and consideration than any other person, clearly points out the necessity of the production of and providing for a supply of the serum, at least enough to supply the department in carrying on its investigation and demonstration. He states that if the \$75,000 appropriation were increased it will be necessary for the department to have much greater laboratory facilities, because the little equipment which it now has is sufficient to take care of the \$75,000 appropriation only in that its plant is very small, put up of matched boards, the floor space not half the size of the committee room; that portable tin houses were bought and made into laboratories; that the State of Ohio has recently erected a laboratory costing \$100,000, and that hereafter that State will be able to handle a great part of that State, but not all, for in his opinion four or five such laboratories would be required to produce serum sufficient for the entire State. He states that the



partment has been compelled to purchase serum for its own use that an appropriation should be made sufficient to put up an up-to-date laboratory for the preparation of the serum. That with equipment costing at least \$100,000 it would be prepared to take up work in probably 20 States, or, in other words, in one county of each of the 20 States, or 20 counties out of 2,500 counties in the United States, and that the proposed plan would require an outlay of probably \$400,000 or \$500,000. Also, that if he had a plant for \$100,000, he could use a couple of hundred thousand dollars.

He further states, page 32:

Dr. MELVIN. I do not think we ought to be expected to use serum except that which we feel fully satisfied is all right.

Dr. HAUGEN. But you have a way of testing it, have you not?

Dr. MELVIN. Well, it has to be tested in batches.

Dr. HAUGEN. Yes.

Dr. MELVIN. And that requires a good deal of work.

Dr. HAUGEN. Is it not safe to assume that the States will furnish a serum that is properly made?

Dr. MELVIN. Most of them would. I would be afraid to trust all of them.

I take it that no one will question the authority. If so, and if it is the purpose of Congress to aid the unfortunate hog raiser in saving his cholera hog, and to ultimately eradicate hog cholera, I take it that it will follow the advice of those with experience and expert knowledge in charge of the work. Dr. Melvin has made it plain that for every \$300,000 appropriated for this purpose \$100,000 should be appropriated for laboratory facilities. If his conclusions are well founded, Congress should set aside a couple of hundred thousand dollars for laboratory facilities out of the \$500,000 carried in the proposed bill in order to enable the department to supply itself with serum required. In support of Dr. Melvin's contention, I quote Dr. Dorset, whom the bureau has placed in charge of the work. Page 24:

When our inspectors went in Montgomery County the 1st of July there were 65 outbreaks in the county. In order to carry out the plan we had mapped out, to treat the sick herds and inoculate herds surrounding, we would have had to treat immediately after the 1st of July not less than 300 herds in that one county. We had not hog cholera serum to do that; we had only a little experimental plant, and that had to be enlarged after the 1st of July, so that the disease was getting along and a good many hogs were lost in herds that it was not possible for us to treat.

Dr. CHAIRMAN. Where is your plant located?

Dr. DORSET. We have a small plant near Ames, Iowa. It has been there for nearly 10 years.

Dr. HOWELL. Have you used only your own serum?

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Dr. DORSET. No. We have used in Dallas and Montgomery Counties serum which we have made. In Missouri we have used a serum made by the University of Missouri, because we were unable to make enough serum to take care of Pettis County, as we could after the work was started.

Dr. HOWELL. Do you know anything of the serum that is on the market, or have you used any?

Dr. DORSET. Well, sir, I believe that the product on the market is variable in quality. Some of it is probably good and some of it is probably impotent.

Dr. MAGUIRE. It is all made from your formula, is it not?

Dr. DORSET. It is supposed to be, but I do not think it always is.

Also Dr. Dorset's statement as to its applicacy, page 23:

Dr. CHAIRMAN. Will you please tell the committee, Dr. Dorset, what you have accomplished in the year's work?



Dr. DORSET. Mr. Chairman, we have only been at work for five months, and I that the work is not finished; that we have simply been organizing the territory. However, I did have our men take some statistics in these counties, and they have recently sent in their figures. The figures for 1913 are estimates, because the year has not yet ended, of course. But I wanted to indicate to the committee what has been accomplished, if I could. Shall I read them, Mr. Chairman?

The CHAIRMAN. Yes.

Dr. DORSET. First, Dallas County, Iowa: In 1911, they raised 77,274 hogs; they lost 11,337; percentage of loss, 12.7.

Mr. HAWLEY. And are you sure that every hog was lost by hog cholera?

Page 24:

Dr. DORSET. No, sir; I am not sure. We have been obliged to take the total loss.

Mr. HAWLEY. Presuming it was due to hog cholera?

Dr. DORSET. Yes; we credited it all to hog cholera. In 1912, Dallas County raised 84,618 hogs and lost 19,821; percentage of loss, 18.9.

In 1913, that is this year, Dallas County raised 118,550 hogs and lost 9,182; percentage of loss, 7.1. Now, with regard to the losses in Dallas County in 1913, 5,289 or 9,182 died before the 1st of July, before our men went there at all, whereas 3,893 died since the 1st of July.

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In 1913, they raised 59,792 and lost 10,376; per cent of loss, 14.

Now, again, in Pettis County, of the 10,376 hogs that died in 1913, 9,035 died before the 1st of July. Our inspector did not go into that county until the 1st of August. I think a loss of only 1,341 hogs since the 1st of July in that county is a very gratifying showing, for there is every indication that that county would have lost at least ten times as many hogs as it did if our men had not gone in there.

If the testimony produced is to be accepted, if States or private concerns are not producing an adequate supply, if not even the State can be trusted in producing a potent serum, if spurious serum such as is being produced proves ineffective, and if potent serum can not be obtained even by the department to carry on the proposed investigations and demonstrations, much less by the hundreds of thousands of farmers suffering a loss annually from fifty to a hundred million dollars, there can be no question but that Congress should heed this suggestion—that is, to provide for adequate laboratory facilities to enable the department to produce the serum, at least to supply it enough for its own use. In my opinion, a provision should be inserted in the bill providing that \$300,000 of the sum so appropriated should be set aside and used for the production, sale, and distribution of the serum, the approximate cost of production, of antihog-cholera serum, to thus enable the department to prepare the serum, not only for its own use but for use of others in preventing and curing the disease.

One objection raised to the manufacture, sale, and distribution of the serum by the Government is that the Government should not engage in business enterprises in competition with private business enterprises. Now that the Government for years has grown, purchased, and distributed in the aggregate millions of dollars worth of vegetable and flower seeds, plants, and shrubbery, operating the biggest printing plant in the world, operating thousands of post-savings banks, and about to operate eight or twelve Federal reserve banks, the President having recommended the building of railroads in Alaska, and the House about to pass a bill already passed by the Senate authorizing its construction, and already operating railroads in Panama, and a line of boats between Colon and New York, it would seem that the objection to setting aside a part of a \$500,000 appropriation for the production, sale, and distribution of an article to meet an emergency of such importance was not well taken. W



am opposed to Government ownership and operation in general, if necessary to meet an emergency such as we are confronted with in this instance, it would seem advisable as it appears the only course open to bring about results desired. A situation has been created, the department has prescribed the cure, but one that cannot be made available except through the States and Federal Government. The testimony is that some 30 States and 75 or 80 private concerns are manufacturing the serum, but not all up to the standard. Not even the States can be trusted.

It is proposed that a more rigid and effective inspection should be provided; if so, it would insure the production of potent serum. I do not believe that a sane business man will invest his capital, manufacture and sell an article in competition with States subsidized to the extent of \$100,000 annually, selling its products at cost. If not, goes without saying that when the proposed inspection is enforced and the manufacturers are compelled to manufacture serum up to the standard, none whatever will be manufactured by private concerns and the production of the serum will be confined to the States and Federal Government. The testimony is that the State of Ohio, with its hundred-thousand-dollar laboratory, the largest, will be able to take care of about one-fifth of the work in the State, other States with smaller appropriations and less facilities, many without any appropriations or facilities, will, under the conditions, be without a chance. I save per chance the State might induce the department to cooperate with it in one of its counties. Applying it to my own State with 99 counties, which, according to reports received and compiled by the agricultural extension department of the Iowa State College, shows that farmers in the 99 counties of Iowa through the ravages of hog cholera during the year 1913 lost 2,827,907 hogs, valued at \$3,278,070. Hogs marketed at a sacrifice due to cholera scare, 270,493, at a loss of \$4,940,986. Loss to cattle feeders, due to shortage of hogs, \$500,000. A total loss to farmers of \$33,720,056. According to this statement my own county (Worth) lost 20,875, or 4 per cent of the hogs in the county. Another county in the district (Lloyd) lost 28,456, or 46 per cent. Cerro Gorda County, 28,662, or 4 per cent. In the 10 counties in my district there were 116,111 hogs lost. In other districts: Sac County, 71,811, or 70 per cent; Stry County, 30,616, or 38 per cent; Tama County, 31,608, or 28 per cent; Washington County, 25,302, or 25 per cent; Winnebago County, 18,551, or 44 per cent; Blackhawk County, 30,154, or 28 per cent; Boone County, 28,257, or 43 per cent; Buena Vista County, 147, or 66 per cent; Sioux County, 103,765, or 71 per cent.

This, I believe, is sufficient to illustrate what we may expect from the proposed legislation and under the proposed plan by the department. See Dr. Galloway's statement, page 4, hearings before the committee, February 4, 1914:

Dr. GALLOWAY. Yes. I am developing this discussion to the end of eliminating everything on hog cholera from the regular appropriation bill and substituting an emergency measure. To carry out the work of inspection would require, as I indicated, approximately \$50,000. That will enable us to put these men in the establishments.

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The CHAIRMAN. Now, Doctor, let me see if I get your idea. First of all you would need \$300,000 in the matter of demonstration, to the satisfaction of the department, in the direction of eradicating hog cholera from a definite area?



Dr. GALLOWAY. Yes, sir.

The CHAIRMAN. You would use \$50,000 in placing inspectors in serum plants to that proper serum was being manufactured?

Dr. GALLOWAY. Yes, sir.

The CHAIRMAN. And, in the third place, you would use the balance—\$150,000—educational work among the people in cooperation with the States?

Dr. GALLOWAY. Yes, sir.

The CHAIRMAN. The States furnishing the serum?

Dr. GALLOWAY. Yes; the States furnishing the serum.

Mr. LEE. The States or the individuals?

Dr. GALLOWAY. The States would furnish the serum.

Here we have the plan submitted by Dr. Galloway, the acting Secretary of Agriculture, and as such the highest authority, and of course the plan will be carried out unless specific directions are given. Dr. Galloway states, page 4:

We have come to the conclusion that we could carry this work on with our existing serum plant in about 15 counties. If it is to be extended in additional counties, then we would of necessity have to enlarge our serum plant, and that would increase the amount to that extent. To do the work we require about \$300,000.

On the other hand, Dr. Dorset states, page 20:

Now, the work of the year has been located in four States—in Montgomery County, Ind.; in Pettis County, Mo.; Dallas County, Iowa; and in Gage and Johnson Counties, Nebr. The work in Nebraska so far has amounted to little except as a preliminary to real work which we hope to begin in the spring. We put one inspector in Nebraska about the 1st of November, I believe, and that is all we have done in Nebraska.

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Dr. DORSET. No. We have used in Dallas and Montgomery Counties serum which we have made. In Missouri we have used a serum made by the University of Missouri, because we were unable to make enough serum to take care of Pettis County as we found after the work was started.

Dr. Melvin states, page 31:

As it is, our original plant was a very small affair, put up of matched boards. The floor space was not half the size of this room. To provide for this work we bought some of these portable tin houses, put them up, and made them into laboratories. We are doing efficient work there, but there is nothing permanent to it; and it is even on our own ground, but on leased ground. We had to put up temporary buildings; and, if we are to continue in this work for ten or a dozen years, which seems probable, I think we should first start with a proper equipment and be prepared to show these manufacturers, and the State people as well, what, in our opinion, is a proper laboratory.

Mr. TAYLOR. Why could you not take \$100,000 to perfect your plant, etc., and \$75,000 to keep your men that you now have? Why would not that cover it?

Dr. MELVIN. That would hardly be in proportion. I think if we had a plant worth \$100,000, the other ought to be larger—a couple of hundred thousand dollars.

Whose statement will we accept? Dr. Galloway's, who states that we could carry the work on with our existing serum plant in about 15 counties; or Dr. Dorset's, who states that the work of the current year was confined to 4 counties, that the work in 1 amounted to little—or simply to putting an inspector in the county on November 1—that the actual work of demonstration and eradication was confined to 3 counties, and that they were unable to make enough serum to take care of all 3 of the counties, but were obliged to purchase serum for 1. The reason given for purchasing the serum is that the \$75,000 appropriation for last year was not available until the 1st of July, but Dr. Melvin states, that it takes 10 days to prepare the serum and ordinarily they would use it right away, and Dr. Dorset states, page 20:

The plan of work was to secure cooperation of the State authorities, first of the State college and through the State college the extension department of the college, then



operation of the live-stock sanitary board or the State veterinarian. Our bureau was to place men in a certain area, which was to be selected, in which we would endeavor to demonstrate methods of eradicating hog cholera. The work then was planned on three lines: First, the education and the organization of the farmers in the district selected, to be carried out primarily by the State college. The second was to involve sanitation and restrictive regulations, to be enforced by the State veterinarian. The third part of our work was to be the active supervision by the Bureau of Animal Industry and the inoculation of diseased herds and exposed herds with the hog-cholera serum.

We have had a great deal of trouble getting these organizations started. Difficulties with the State colleges and others have not been able to overcome have made the organization very slow, and we have found ourselves, three or four months after the work began, without a suitable organization for carrying it on.

Page 6:

Q. HAUGEN. First you draw the blood from a cholera hog?

A. MELVIN. You get your immune hog first, then you get your blood from a hog that is sick with cholera and inject a certain amount of that into this immune hog and produce what we call a hyperimmune, and then from him draw the blood and use that blood in this immunizing work.

Q. HAUGEN. That is mixed, I understand, with carbolic acid?

A. MELVIN. That is merely to preserve it.

Q. HAUGEN. How long would that take?

A. MELVIN. That would take, I think, about 10 days.

Q. HAUGEN. Then you test it by applying it on a hog?

A. MELVIN. Ordinarily they would use that right away. They do not test all of the different batches. Some do. Some take the blood and serum from several hogs and then try it to see whether it does protect or not. They inoculate a hog or two hogs with this diseased blood, and then also with the serum, to see whether it does render an immune or not. That is the proper way to do it.

According to the statement of Dr. Dorset, in charge of the work, it took six months to secure cooperation with the State. He states that they had a great deal of trouble in getting the organizations started. The appropriation for the organization and the production of the serum was made available on the same date and after the money was available for the serum, months passed before it could be applied. It would seem that a board shack, half the size of the committee room and a few small portable tin houses could be put together in a few months, allowing 10 days and even six weeks for the manufacture of the serum by a great department with thousands of employees and \$5,000 available. If so, the reason given can not be accepted; but that as it may, the fact is that Dr. Galloway, whose word is properly law in the department in this instance, contends that \$300,000 or \$20,000 shall be allotted for each of 15 counties for work identical with that carried on in four counties last year; that the proposed work can be carried on in 15 counties with its existing serum present, which Dr. Melvin and Dr. Dorset, in charge of the work, contended proved inadequate to provide serum for use in the four counties for carrying on work identical to that which it is proposed to do in 15 counties now.

Under the proposed plan, the 15 counties to be selected will receive aid to the extent of \$20,000, or 15 out of the 2,500 counties will be partly provided for and the balance, 2,485, must go without. As, for instance, Iowa was fortunate enough to receive the aid of one of the allotments for the current year for Dallas County. According to the report, 15,954, or 17 per cent, of the hogs in that county died. Dr. Dorset's statement is that only 9,182, or 7.1 per cent, died. (See p. 24.) The contention is that a large number of hogs were saved in Dallas County. Undoubtedly that is true; but while Dallas County was benefited, the other 98 counties were left to take care



of themselves, and lost more than 2,800,000 hogs. In other words the other counties helped to pay for the serum and expenses connected with the demonstration in Dallas County and were left to bury their own hogs. On the other hand, had the money allotted to Dallas County been used for the production, sale, and distribution of potent serum throughout the whole State, undoubtedly a large number of the 2,800,000 hogs that died in the other counties would have been saved. Besides, it must be obvious to all that when Iowa, the greatest of all hog-raising States, with a Government plant maintained in the State, with liberal annual appropriation made for the production of the serum, is not able to supply the demand, but loses through the ravages of hog cholera more than \$33,000,000 in a single year, that other States with less facilities to combat the ravages of hog cholera are absolutely powerless in supplying the demand for the serum.

If so, if private concerns are not likely to supply the demand, and if potent serum is the only effective remedy found and has merit and will when applied cure or prevent cholera, then it is obviously necessary to make at least a part of the appropriation available for the production, sale, and distribution of a potent serum. Under the circumstances the department should prepare and keep on hand serum, if not enough to supply the demand, at least to do so as far as possible, to supply emergencies in States unable to supply the demand in the State. If \$300,000 is set aside for that purpose as a working capital it will enable the department to purchase or manufacture serum for sale at its approximate cost. From time to time as the supply exhausts itself the money would be coming in in proportion to the amount disposed of and made available for the purchase or manufacture of a new supply. Most likely it will prove inadequate to meet all emergencies that may arise, but that is no reason for not providing for a part of what is needed. The \$300,000 will supply a large number and will be of inestimable value in saving millions of hogs.

It is contended that the language in the bill will give the department authority to manufacture and distribute the serum. S. 3439—that is, the proposed bill—appropriates the sum of \$500,000 for the purpose of the investigation, treatment, and eradication of hog cholera and for carrying on examinations and inspections authorized in regulating the preparation of the serum. Granting that it gives authority, it will be ineffectual, inasmuch as the department has clearly indicated what it proposes to do with the proposed appropriation, and that is to continue doing what it is now doing—to allot \$300,000, or \$20,000 to each of the 15 counties to be selected, \$50,000 for inspection, and the balance, \$150,000, for demonstration, including the expenses in Washington. That is the present plan suggested by Dr. Galloway, Acting Secretary of the department, and if approved of by passing S. 3439, as it is proposed to do, it will of course have to be carried through, and I take it that for that reason the language submitted in the Book of Estimates, page 18, which provides that part of the appropriation asked for may be used for the construction and equipment of an antihog-cholera serum plant was not included in the bill. Hence the department will have \$500,000 to use, \$50,000 for inspection of plants not likely to come into existence and \$300,000 to demonstrate the value of a serum not available even for the use of demonstration.